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AVERAGE DOLLAR INCREASES IN SALARIES OF INDIVIDUAL FACULTY MEMBERS, 1964-65 TO 1965-66. A SPECIAL STUDY BY AAUP'S COMMITTEE Z.

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AVERAGE SALARY INCREASES FOR INDIVIDUAL FACULTY MEMBERS ARE GENERALLY HIGHER THAN FIGURES FOR AN INSTITUTION'S AVERAGE SALARY INCREASES SHOW. THIS DISCREPANCY RESULTS FROM TWO BASICALLY DIFFERENT TYPES OF FIGURES--(1) THE INSTITUTION'S OVERALL STANDARD OF REMUNERATION AND (2) THE FINANCIAL IMPROVEMENT IN THE CIRCUMSTANCES OF A SINGLE REPRESENTATIVE INDIVIDUAL. AVERAGE SALARY PAYMENTS AT AN INSTITUTION MAY NOT HAVE CHANGED, BUT INDIVIDUAL RISE IN RANK WOULD INCREASE INDIVIDUAL EARNINGS. THE AAUP COMMITTEE Z'S ANNUAL REPORTS THUS TEND TO UNDERSTATE THE ECONOMIC GAINS OF INDIVIDUALS ALREADY ON A FACULTY. DATA FOR THE SURVEY WERE OBTAINED FROM USABLE RESPONSES FROM 54 UNIVERSITIES AND 22 LIBERAL ART COLLEGES. THE DATA INDICATED THAT AN INSTITUTION'S AVERAGE SALARY LEVEL FROM YEAR TO YEAR TENDS TO UNDERSTATE THE RISE IN EARNINGS OF INDIVIDUALS. PROFESSORS' LARGEST GAIN FROM 1964 TO 1965 WAS $1,060 (IN PUBLIC UNIVERSITIES), AND THEIR SMALLEST GAIN WAS $810 (IN CHURCH-RELATED UNIVERSITIES). SIMILAR RELATIONSHIPS WERE SHOWN FOR ASSISTANT PROFESSORS, BUT FOR OTHER RANKS THE RELATIONSHIPS WERE MIXED. THE RANGE OF SALARY INCREASES FOR PROFESSORS WAS $540 TO $2,050 WITH MAJOR CONCENTRATION BETWEEN $760 AND $1,180. THE REPORT OVERSTATED AVERAGE SALARY INCREASES BY MORE THAN $300 IN ONLY THREE OF THE 216 INDIVIDUAL CASES EXAMINED, WHILE IT UNDERSTATED BY MORE THAN $300 IN 55 CASES. THIS SHOWED THAT THE EFFECTS OF PROMOTION TEND TO RAISE THE INCOME OF THE INDIVIDUAL MORE RAPIDLY THAN THE RATE OF RISE OF THE INSTITUTION'S SCALE OF REMUNERATION. (HW)

AVERAGE DOLLAR INCREASES IN SALARIES OF INDIVIDUAL FACULTY MEMBERS 1964-65 to 1965-66

(A special study by AAUP's Committee Z)

I. PURPOSE OF THE STUDY

One of the well grounded concerns of administrators arising out of Committee Z's annual survey of the economic status of the academic profession is that they seem to spend more on faculty salary increases than the amount that shows up in the figures. If an institution provides an average salary increase of 7 per cent for its full professors, this shows up perhaps as a 5 per cent rise in the average salary in the AAUP report.

It is easy enough to explain the discrepancy--for two basically different, though easily confused, types of figures are involved. Both are significant, but for different purposes. One of these figures is the institution's overall standard of remuneration, and the other is the financial improvement in the circumstances of a single representative individual. Even if an institution had maintained exactly the same scale of compensation for every rank over the course of the past decade, a representative faculty member would almost certainly be more highly paid after ten years had elapsed. Because he would have risen in rank, his earnings would have gone up correspondingly even though the Committee Z report would show correctly that average salary payments at the institution had not changed at all.

Our usual report deals with standards of compensation at the college or university as a whole--with the institution's overall salary scale for each rank. Yet considerable importance must be granted also to the other measure under discussion--an index of the improvement of the circumstances of the individual. This note reports the results of a study of the latter.

Obviously there is an inherent statistical bias in the difference between the two figures. Promotion constitutes a powerful force working toward an increase in the average individual's income higher than that in the institution's salary scale. As a result, the Committee Z reports may understate the economic gains of individuals already on the faculty because the college or university frequently adds through promotion or appointment relatively more individuals in the lower salary brackets for any given rank and loses through retirement or change of position relatively more of its most highly-paid professors. On the other hand, sometimes things may work out the other way--if newly appointed faculty members receive salary levels higher than the average for those already there, as may happen in an institution that is seeking to improve its standards. Clearly, these discrepancies need suggest no shortcomings either in the operations of the institution or in Committee Z's usual measure of average salaries and compensations. These differences mean merely that the data must be used with care and not interpreted as something other than they are.

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II. NATURE OF THE DATA

Our information was obtained from a sample of institutions participating in the annual survey. These colleges and universities were asked to supply information on their average salary increases by rank from 1964-65 to 1965-66. We received usable data from 54 universities and 22 liberal arts colleges. The sample of universities consisted of 30 public, 18 private, and 6 church-related institutions. Together, the institutions in the sample appear to constitute a relatively good cross-section of American universities and our results for this category may therefore be taken with some degree of confidence.

The figures used in this study are institutional averages. Thus in Table 1 a median salary increase of $1,000 for full professors in public universities does not mean that the median individual received a salary increase of that magnitude but rather that the median reporting institution provided an average salary increase of $1,000 to its full professors who held the same rank the preceding year. In other ranks, adjustement for promotion was made in a simple manner: In cases where a faculty member received a promotion in rank for 1965-66 his salary increase was reported under his 1964-65 rank.

III. IMPLICATIONS OF THE DATA

Our sample of usable data for liberal arts colleges is too small to warrant any overall conclusions. The only thing one can say here is that the nine liberal arts colleges included in the biennial survey (41 institutions selected in the 1940's for their relatively progressive salary structures) kept pace with the salary increments given by the 12 private independent universities from the biennial salary survey sample. The remainder of our discussion deals, therefore, with the universities.

The improvement in individual economic well-being, as reflected by salary increases of individuals already on the faculty of a university, was surprisingly high last year. The special data collected also indicate, as our introductory discussion led us to suspect, that changes in an institution's average salary level from year to year tend, on the whole, to understate the rise in the earnings of individuals. The net understatement among the universities, however, was not as great as anticipated.

Increases in the Individual's Average Salary. Average increases in the salary of the individual from 1964 to 1965 can be compared rank by rank with the change in the average salary level reported for the same period in Committee Z's annual survey data for institutions in the sample. Professors showed the greatest average salary gain ($1,060) in public universities and the smallest improvement ($810) in the church-related universities. Similar relationships by type of control prevailed in the rank of assistant professor. In the other ranks the relationships were mixed, except that the smallest gains continued to be reported in the church-related universities.

Variations among universities in the magnitude of the average salary increases for professors were considerable, ranging from a low of $540 to a high of $2,050, although most of the values were concentrated between $760

and $1,180 (the inter-quartile range). The key statistical indicators appear in Table 1, which also gives figures for associate professors, assistant professors, and instructors.

Difference Between Committee Z Figures and Average Salary Increase of Individuals Already on the Faculty. As Table 3 shows, the economic gains accruing to individuals generally exceed the corresponding figures in the Committee Z reports. The net overstatement, which averaged $170 in the rank of professor for all universities combined, was somewhat greater in the three lower ranks. When the statistics were grouped by type of control, the net overstatement was found to range from a low of $50 for instructors in church-related universities to a high of $300 for associate professors in private independent universities. As one might surmise, in most cases the average economic gains of the individual were higher than the Committee Z figures (the positive entries in Table 3). The ratio of overstatements to understatements was about two to one.

More significant, however, than the proportion of overstatements to understatements is information on their size, for small deviations are relatively inconsequential. It is noteworthy that while the amount of the understatement exceeded $300 in only three of the 216 cases (54 institutions, each with four ranks), overstatements exceeded this amount in 55 instances.

All of this shows very clearly the effects of promotion and its tendency to raise the income of the individual more rapidly than the rate of rise of the institution's scale of remuneration. However, the pattern is by no means uniform and without important exceptions. There is thus no simple and foolproof way in which one can draw inferences about the magnitude of one of our measures from data relating to the other. Above all, it underscores the dangers involved in using AAUP's annual survey as a measure of improvement in well-being of the individual faculty member rather than interpreting it strictly as an index of the overall scale of remuneration in the institution.

William J. Baumol
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Table 1

Average Salary Increases in Dollars by Academic Rank for Individual Universities--Means, Medians, Minima, Maxima, and Inter-quartile Ranges--1964-65 to 1965-66*

(Increases on Nine-Month Basis)

Type of Control	Arithmetic Mean	Median	Minimum	First Quartile	Third Quartile	Maximum
			PROFESSOR			
Public	$ 1,060	$ 1,000	$ 540	$ 800	$ 1,250	$ 2,050
Private-Ind.	890	850	590	710	1,010	1,490
Church-Rel.	810	740	580	610	870	1,330
All Combined	970	940	540	760	1,180	2,050
			ASSOCIATE PROFESSOR			
Public	$ 840	$ 870	$ 280	$ 510	$ 1,040	$ 1,980
Private-Ind.	840	840	640	700	910	1,180
Church-Rel.	780	670	560	600	890	1,270
All Combined	830	840	280	650	970	1,980
			ASSISTANT PROFESSOR			
Public	$ 690	$ 680	$ 240	$ 520	$ 810	$ 1,500
Private-Ind.	630	600	480	580	680	840
Church-Rel.	570	580	350	400	650	860
All Combined	660	610	240	530	770	1,500
			INSTRUCTOR			
Public	$ 480	$ 450	$ 120	$ 370	$ 450	$ 1,020
Private-Ind.	520	500	300	400	580	960
Church-Rel.	420	430	280	390	470	540
All Combined	490	470	120	400	560	1,020

NOTE: Figures have been rounded to the nearest $10.

* Data obtained from a special questionnaire sent to a sample of institutions participating in the 1965-66 self-grading compensation survey. The sample includes 30 public, 18 private-independent, and 6 church-related universities.

Table 2

Cumulative Distribution of Average Salary Increases in Universities by Type of Control and Academic Rank, 1965-66[1]
(Percentage Cumulated Upward by $100 Intervals)

Class Intervals	PROFESSOR				ASSOCIATE PROFESSOR				ASSISTANT PROFESSOR				INSTRUCTOR			
	Public	Priv. Ind.	Church-Rel.	All	Public	Priv. Ind.	Church-Rel.	All	Public	Priv. Ind.	Church-Rel.	All	Public	Priv. Ind.	Church-Rel.	All
Under $ 100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
" 200	-	-	-	-	-	-	-	-	-	-	-	-	3%	-	-	2
" 300	-	-	-	-	3%	-	-	2%	3%	-	-	2%	13	-	17%	9
" 400	-	-	-	-	7	-	-	4	10	-	17%	7	30	11%	33	24
" 500	-	-	-	-	13	-	-	7	17	6%	33	15	67	50	83	63
" 600	7%	6%	17%	7%	20	-	17%	13	40	39	50	41	77	83	100	81
" 700	13	17	50	19	33	22%	67	33	60	78	83	69	87	83	100	87
" 800	23	44	50	33	40	33	67	41	70	83	83	76	93	94	100	94
" 900	37	56	83	48	53	67	83	61	80	100	100	89	97	94	100	96
" 1,000	50	72	83	61	73	83	83	78	93	100	100	96	97	100	100	98
" 1,100	57	83	83	69	90	94	83	91	97	100	100	98	100	100	100	100
" 1,200	70	89	83	78	97	100	83	96	97	100	100	98	100	100	100	100
" 1,300	77	94	83	83	97	100	100	98	97	100	100	98	100	100	100	100
" 1,400	83	94	100	89	97	100	100	98	97	100	100	98	100	100	100	100
" 1,500	93[2]	100	100	96[2]	97	100	100	98	97	100	100	98	100	100	100	100
" 1,600	97	100	100	98[2]	100	100	100	100	100	100	100	100	100	100	100	100

1 Data were obtained from a special questionnaire sent to a sample of institutions participating in the 1965-66 self-gradin compensation survey. Percentages have been rounded.

2 The remaining universities had average salary increases in excess of $1,600.

INTERPRETATION OF DATA: 23 per cent of the public universities had average salary increases of less than $800 in the rank of professor; the remaining 77 per cent had increases of $800 or higher.

Table 3

Amount by Which the Actual Average Salary Increase by Academic Rank Exceeded the Corresponding Change in Average Salary Reported in the Committee Z Survey in Individual Universities--Means, Medians, Minima, Maxima, and Interquartile Ranges--by Type of Control, 1964-65 to 1965-66*

(Increases on Nine-Month Basis)

Academic Rank	Arithmetic Mean	Median	Minimum	First Quartile	Third Quartile	Maximum
			P U B L I C			
Professor	$ 200	$ 190	$ -280	$ - 40	$ 300	$1,380
Assoc. Prof.	250	220	- 70	50	380	760
Ass't. Prof.	180	210	-350	10	330	650
Instructor	120	70	-210	- 30	210	710
			P R I V A T E I N D E P E N D E N T			
Professor	$ 150	$ 190	$ -370	$ 100	$ 270	$ 580
Assoc. Prof.	300	330	- 40	170	420	630
Ass't. Prof.	250	260	- 50	200	360	500
Instructor	190	170	-520	20	210	1,080
			C H U R C H - R E L A T E D			
Professor	$ 100	$ 190	$ -150	$ - 20	$ 190	$ 260
Assoc. Prof.	160	150	0	130	180	310
Ass't. Prof.	80	100	-190	40	140	250
Instructor	50	90	-300	- 40	250	260
			A L L C O M B I N E D			
Professor	$ 170	$ 180	$ -370	$ 10	$ 270	$1,380
Assoc. Prof.	250	230	- 70	110	380	760
Ass't. Prof.	190	220	-350	40	330	650
Instructor	190	100	-520	- 30	210	1,080

* Figures are calculated from the array of data obtained from a special questionnaire sent to a sample of institutions participating in the salary survey. Figures are rounded to the nearest $10.

Interpretation of data: Positive values indicate that actual salary increases on the average exceed the change in average salary levels calculated from the Committee Z reports; negative values indicate that the average actual salary increase fell short of the change in average salary levels calculated from the Committee Z reports. Thus in public universities actual salary increases for professors were overstated by the Committee Z reports by as much as $280 (the Minimum) and understated by as much as $1,380 (the Maximum).

Table 4

Average Salary Increases in Dollars by Academic Rank
for Nine Small Private Liberal Arts Colleges Participating in the
Biennial Salary Survey--Means, Medians, Minima, and Maxima--1964-65 to 1965-66*

(Increases on Nine-Month Basis)

Academic Rank	Arithmetic Mean	Median	Minimum	Maximum
Professor	$ 930	$ 760	$ 490	$1,600
Assoc. Prof.	870	840	650	1,210
Ass't. Prof.	650	620	430	990
Instructor	600	630	270	930

* Nine of the fourteen "small" Liberal Arts Colleges participating in the Biennial Survey submitted appropriate data for use in this analysis. Included were Amherst, Bryn Mawr, Carleton, Haverford, Mills, Pomona, Vassar, Wesleyan, and Williams.

NOTE: Figures are calculated from the array and are rounded to the nearest $10.